

Cognitive Algebra Date\_\_\_\_\_ Block\_\_\_\_\_

## 5.1 Assignment: Writing Equations in Slope -intercept form

1. What is your name?

**Write an equation of the line.**

2. The slope is 0; the y-intercept is -5.

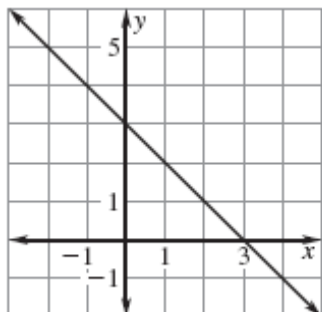
3. The slope is  $-\frac{3}{4}$ ; the y-intercept is 9.

4. The slope is  $\frac{4}{5}$ ; the y-intercept is -7.

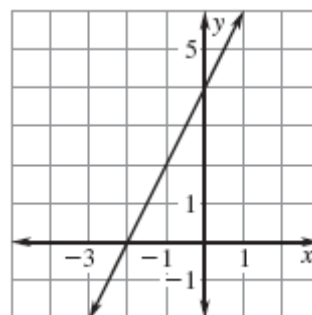
5. The slope is  $-\frac{4}{3}$ ; the y-intercept is  $\frac{7}{8}$ .

**Write an equation of the line shown in the graph.**

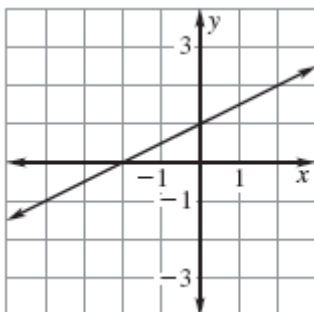
6.



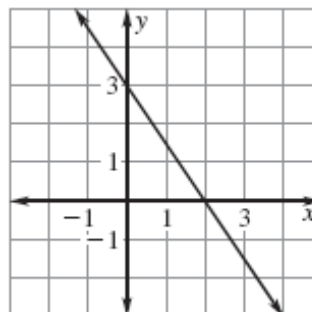
7.



8.



9.



**Cognitive Algebra** Date\_\_\_\_\_ Block\_\_\_\_\_

**5.1 Assignment: Writing Equations in Slope –intercept form**

**10.** In mammals, the weight of the heart is approximately 0.005 of the total body weight. Write a linear model that gives the heart weight in terms of the total body weight.

**11.** Use the equation from question #10, to complete the table.

	<i>Human</i>	<i>Cow</i>	<i>Elephant</i>	<i>Whale</i>
<i>Total weight, x (in pounds)</i>	150	1500	12,000	200,000
<i>Heart weight, y (in pounds)</i>				

**A car rental company charges a flat fee of \$29 and an additional \$0.15 per mile to rent a compact car.**

**12.** Write an equation to model the total charge,  $y$  (in dollars) in terms of  $x$ , the number of miles driven.

**13.** Complete the table.

<i>Miles (x)</i>	25	50	100	200
<i>Cost (y)</i>				

**Write the equation in the form  $ax + b = 0$ . Then write the related function  $y = ax + b$ .**

**14.**  $-4x = -5x$

**15.**  $8x - 9 = 2x$

Cognitive Algebra Date\_\_\_\_\_ Block\_\_\_\_\_

**5.1 Assignment: Writing Equations in Slope –intercept form**

**Solve the equation algebraically. Check your solution graphically.**

16.  $6x + 2 = -4x$

17.  $\frac{2}{5}x - 2 = -6$

18.  $-3x + 13 = 1$

19.  $-12 - 7x = 3x + 8$

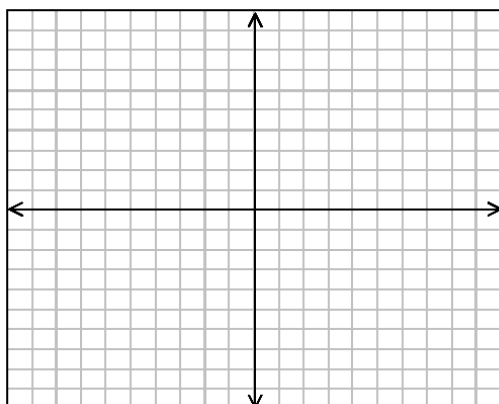
**Solve the equation graphically. Check your solution algebraically.**

20.  $2x + 6 = 4$

21.  $3x + 15 = -9x + 7x$

**Graph the equation. If necessary, write the equation in slope-intercept form first.**

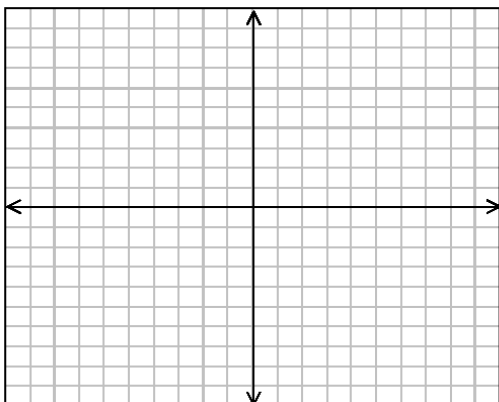
22.  $y = x + 5$



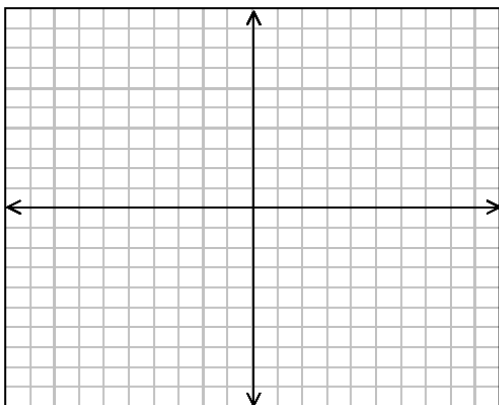
Cognitive Algebra Date\_\_\_\_\_ Block\_\_\_\_\_

**5.1 Assignment: Writing Equations in Slope -intercept form**

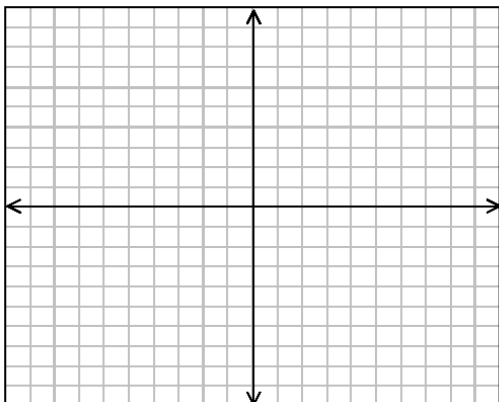
**23.**  $y = \frac{2}{3}x$



**24.**  $y = -\frac{4}{5}x - \frac{1}{2}$



**25.**  $2y = 8$



Cognitive Algebra Date\_\_\_\_\_ Block\_\_\_\_\_

## 5.1 Assignment: Writing Equations in Slope -intercept form

Decide whether the graphs of the two equations are parallel lines.

26.  $5x + y = -4$ ;  $y - 5x = 6$

27.  $y = 6x - 7$ ;  $y = 3 + 6x$

28.  $y = -\frac{1}{2}x + \frac{3}{2}$ ;  $y = \frac{8-x}{2}$

29.  $7y = 2x + 7$ ;  $7y - 2x + 3 = 0$

